

Response Under 37 C.F.R. § 1.116

Expedited Procedure

Group Art Unit 2872

Application No. 10/070,298

Paper Dated: March 30, 2005

In Reply to USPTO Correspondence of December 30, 2004

Attorney Docket No. 4083-020383

REMARKS

This Amendment amends claims 1 and 18 in accordance with the original disclosure. Support for the claim amendments is found, for example, in the specification at page 8, line 24 to page 9, line 5; and page 12, line 19 to page 13, line 2. Claims 1-18 remain in this application.

Rejections Under 35 U.S.C. § 103

Claims 1-4, 7-10, and 13-18 stand rejected under 35 U.S.C. § 103(a) for obviousness over the teachings of JP 2000066113A (Iizuka) in view of U.S. Patent No. 5,071,242 to Yanagisawa and U.S. Patent No. 4,671,165 to Heidmann et al. Claims 5, 6, 11, and 12 stand rejected for obviousness over Iizuka, Yanagisawa, and Heidmann in further view of WO 88/02125.

As discussed with Examiner Fineman in the Examiner Interview conducted on January 12, 2005, Applicant has amended claim 1 to include the limitation that the first optical member, first objective optical system, first ocular optical system, and second objective optical system are fixed in the main case so that they do not move when pupil distance is adjusted. Applicant believes amended claim 1 overcomes the prior art rejections. Reconsideration of the obviousness rejections of claims 1-18 over the cited prior art is respectfully requested.

Claim Objections

1. Claim 18

Claim 18 was objected to for improper dependent form for failing to further limit the subject matter of claim 2, from which it depends. As set forth above, Applicant has amended the dependency of claim 18 from claim 2 to claim 1. Applicant would also like to point out that amended claim 18 is not of the same scope as claim 2. Claim 2 includes the limitation that the displaying optical system comprises a relay lens and a reflecting mirror. Thus, in claim 2, one or more lenses or reflecting mirrors would be possible. However, claim

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18 includes the limitation that the displaying optical system consists of one relay lens and one reflecting mirror. Thus, claim 18 is directed to a specific embodiment in which only one relay lens and only one reflecting mirror are present. In view of the above amendment, reconsideration of the objection to claim 18 is respectfully requested.

2. Claims 1-18

Claims 1-18 were objected to for awkward phrasing in claim 1. Specifically, the Examiner recommended removing the first recitation of “and” from claim 1, lines 11-13. As set forth above, Applicant has amended claim 1 as suggested by the Examiner to remove the first “and”. Therefore, reconsideration of the objection to claims 1-18 is respectfully requested.

Rejections Under 35 U.S.C. § 112, second paragraph

Claims 5, 6, 11, and 12 stand rejected for indefiniteness. Specifically, the Examiner states that it is unclear how the “beam splitter transmits infrared ray and reflects visible light”. In response, Applicant provides the following comments and the attached figures A, B, and C illustrating the comments.

With regard to claims 5 and 6, the Examiner states that it is unclear from Figs. 1 and 5, which show the beam splitter 33/39, how infrared light can be transmitted from the beam splitter to the laser beam receiver 41 when the laser beam receiver is perpendicular to visible/infrared light entering the beam splitter and how the visible light is reflected from the beam splitter when the ocular is parallel to visible/infrared light entering the beam splitter. As explained from page 9, line 6 to page 10, line 13 of the application, the beam splitter shown in Fig. 5 is made by the combination of a known Porro II erecting prism and a rectangular prism 38. As shown in the figures A-C accompanying this Amendment, the Porro II erecting prism itself is made by the combination of three prisms, i.e., the first upper prism 35, the first side prism 36, and the first lower prism 37. The rectangular prism 38 is set to the Porro II erecting prism, with its bottom face contacted with the bottom face of the first lower prism 37.

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First, we should explain how visible/infrared light is reflected inside the Porro II erecting prism. Fig. A shows the combination of the prisms, which is the same as that shown in Figs. 1 and 5, although the position thereof is different. In the lower figures (B, C), the prisms are broken apart for the purpose of explanation. We are going to explain how visible/infrared light is reflected, based on the lower left figure (B). Visible/infrared light entering the upper left prism, which corresponds to the first upper prism 35 (and the second upper prism 55) in the present application, is reflected by the base square face, which is inclined at 45° in the figure, and sent to the lower prism, which corresponds to the first side prism 36 (and the second side prism 56) in this application. Visible/infrared light entering the lower prism is reflected by one of the lateral square faces and directed to the other lateral square face. Then, visible/infrared light is reflected again by the other lateral square face, and sent to the upper right prism, which corresponds to the first lower prism 37 (and the second lower prism 57) in this application. In the enclosed figures A-C, a rectangular prism is not laid on the base square face of the upper right prism. So, this example corresponds to the second optical member of the present application, which does not include the beam splitter. In the second optical member, visible light is reflected by the base square face and sent to the second ocular optical system. On the other hand, in the first optical member, the bottom or base face of the rectangular prism 38 is set to the base square face of the first lower prism, and these laid faces make the beam splitter. Visible light is reflected by the laid faces and sent to the first ocular optical system, while infrared light is transmitted by the laid faces and sent to the laser beam receiver (41).

Therefore, visible light is reflected by the beam splitter and sent to the first ocular optical system, while infrared light is transmitted and sent to the laser beam receiver. In light of this description of the basic function of Porro II prisms, the Examiner is requested to carefully look at Figs. 1 and 5 of the pending application where the light paths inside the optical members are shown in broken lines, which illustrate the light paths inside the Porro II prism and the beam splitter.

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Conclusion

In view of the above amendments and remarks, Applicant believes claims 1-18, as amended, are patentable over the cited prior art and are in condition for allowance. Reconsideration of the rejections and objections and allowance of claims 1-18 are respectfully requested.

Respectfully submitted,

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